



SAFETY DATA SHEET
(As prescribed by OSHA, 29 CFR 1910.1200(g) and Appendix D)
NATGran™ Pelletized Dolomite produced at Carey, Ohio

Section 1: Identification

- **Product identifier used on the label and any other common names or synonyms by which the substance is known.**

Pelletized Dolomite shipped in bulk or packaged. Products designated L145, L150, L100, DH46, DH66, DL47-145, DL47-100, DL58-150, DL62-220.

- **Name, address, phone number of the manufacturer, importer, or other responsible party, and emergency phone number.**

Manufactured By: National Lime & Stone Co., 551 Lake Cascade Parkway, PO Box 120, Findlay, OH 45840

Phone: 419-422-4341 Emergency Phone: 419-396-7671

- **Recommended use of the chemical:** Carrier for active chemical agents.

Section 2: Hazards Identification (see also Section 11: Toxicological Information)

Inhalation: Acute -Dusts may irritate the nose, throat and respiratory tract by mechanical abrasion and drying. Coughing, sneezing, shortness of breath may occur.

Chronic - Long term exposure to crystalline silica may cause a chronic lung disease, silicosis. Respirable Crystalline Silica (RCS) may cause cancer. Limestone is a naturally occurring mineral complex that contains varying quantities of quartz (crystalline silica). In its natural bulk state, limestone is not a known health hazard. Limestone may be subjected to various natural or mechanical forces that produce small particles (dust) which may contain RCS (particles less than 10 micrometers in aerodynamic diameter). Repeated inhalation of RCS (quartz) may cause lung cancer according to IARC and NTP; ACGIH states that it is a suspected cause of cancer. Other forms of RCS (e.g., tridymite and cristobalite) may also be present or formed under certain industrial processes.

Wood dust is listed as a carcinogen by NTP, OSHA, or IARC – Group 1: Carcinogenic to humans, sufficient evidence or carcinogenicity. This classification is primarily based on studies showing association of exposure to wood dust and Adenocarcinoma of the nasal cavities and paranasal sinuses. IARC did not find sufficient evidence of an association between occupational exposure to wood dust and other cancers.

Section 2 Hazard(s) Identification Continued

Eye contact: Acute - Dust particles can scratch the eye causing tearing, redness, a stinging or burning feeling, or swelling of the eyes with blurred vision. Chronic – no known effects.

Skin contact: Acute - Dust particles can dry, scratch and irritate the skin resulting in redness, itching or burning feeling, swelling of the skin, and / or rash. Chronic – no known effects.

Ingestion: Ingestion of this product is not a likely route of entry.

Hazard category for:

- Carcinogen: Category 1A (according to 29 CFR 1910.1200 Appendix A.6)
- Specific Target Organ Toxicity – Category 2 (according to 29 CFR 1910.1200 Appendix A.9)

- **Signal word:** Danger
- **Hazard statements:** May cause cancer. May cause damage to organs (lungs, nasal cavities, paranasal sinuses) through prolonged or repeated exposure.

GHS Classification:	Category	
	Limestone	Wood Dust
CARCINOGENICITY	1A	2
SPECIFIC TARGET ORGAN TOXICITY	2	-
SKIN CORROSION/IRRITATION	2	3
EYE DAMAGE/IRRITATION	2A	2B

Hazards Not Otherwise Classified (HNOC) – None Known



- **Pictograms:**
- **Precautionary statements:** Avoid Exposure

Respiration protection: NIOSH-MSHA approved dust respirators for conditions where dust levels may exceed exposure limits.

Ventilation: As required to maintain exposures below TLV's. Vent dust to collector.

Eye protection: Dust goggles should be worn when visibly dusty conditions exist.

Storage: Restrict or control access to stockpile areas. Engulfment hazard: To prevent burial or suffocation, do not enter a confined space, such as a silo, bulk truck or other storage container or vessel that stores or contains aggregates without an effective procedure for assuring safety.

Section 3: Composition/Information on Ingredients

Components	Formula	CAS No.	Weight %
Dolomite or Dolomitic Limestone	CaCO ₃ ·MgCO ₃	16389-88-1	>60
Silicon Dioxide (Quartz)	SiO ₂	14808-60-7	>0.1
Wood Dust	N/A	None	>1
Magnesium Lignosulfonate	N/A	8061-54-9	<25
Calcium Lignosulfonate	N/A	8061-52-7	<25
Cane Molasses	N/A	8052-35-5	<25
Sodium Lignosulfonate	N/A	8061-51-6	<25

Section 4: First-Aid Measures

- Necessary first-aid instructions by relevant routes of exposure:**

Inhalation: Remove to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact physician if irritation persists or if breathing is difficult.

Skin: Wash affected areas thoroughly with mild soap and fresh water. Remove contaminated clothing. Contact physician if irritation persists or later develops. (Skin absorption is not known to occur.)

Eyes: Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding the eyelid(s) open. Occasionally lift the eyelid(s) to ensure thorough rinsing. Beyond flushing, do not attempt to remove material from the eye(s). Contact a physician if irritation persists or later develops.

Ingestion: If person is conscious, do not induce vomiting and get medical attention. Never attempt to make an unconscious person drink.

Pre-existing medical conditions that may be aggravated by exposure include disorders of the eye, skin and lung (including asthma and other breathing disorders). If addicted to tobacco, smoking will impair the ability of the lungs to clear themselves of dust.

See also Section (2) of this SDS - Hazards(s) Identification.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media – Extinguish with powder, foam, carbon dioxide or water mist.

Unsuitable extinguishing media – Do not use water stream that may spread the fire.

Special protective equipment and precautions for firefighters – Wear Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit.

Specific hazards that develop from the material during the fire: Flash point – Not Applicable;

Auto-ignition Temperature – Typical: 400-500°F depending upon duration of exposure to heat source and other variables.

Unusual fire and explosion hazards:

LEL for wood dust: Depending on the moisture content and particulate diameter, wood dust may explode in the presence of an ignition source. An airborne concentration of 40 grams of dust per cubic meter of air is often used as the LEL for wood dust. (Dust class St-1 for minus 40 mesh wood dust.)

Lignosulfonate dust combustible dust characteristics: MIE: 1130 mJoule; Kst: Dust class St1 (0-200 bar*m/s); Particle size: 100% < 150 micron.

Contact with powerful oxidizing agents may cause fire and/or explosions. (See section 10 of this SDS.)

When heated at 1700°F or more for prolonged periods, dolomitic limestone decomposes into dolomitic quicklime (CaOMgO) releasing carbon dioxide (decomposition can begin at 1100°F). Dolomitic quicklime generates heat (and potentially steam) when exposed to water.

Section 6: Accidental Release Measures

Cleanup procedures :

Spilled materials, where dust is generated, may overexpose clean-up personnel to respirable dust. Use of respiratory protective equipment may be necessary. Prevent generating airborne dust; do not use compressed air for clean-up. Pellets will disperse in water; prevent spilled materials from entering streams, drains, or sewers.

Waste disposal method: Pick up and reuse clean materials. Dispose of waste materials only in accordance with applicable federal, state, and local laws and regulations.

Section 7: Handling and Storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood.

Store in a dry, cool, well ventilated area. Keep formation of airborne dusts to a minimum. Do not breathe dust. Avoid contact with oxidizing agents, drying oils. Avoid contact with open flames.

Provide appropriate exhaust ventilation at places where dust is formed. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Bulk density can exceed 65 pounds per cubic foot. Verify storage structures (bins, silos, etc.) have sufficient strength to contain the material. Stack bagged material in a secure manner to prevent falling.

Engulfment hazard. To prevent burial or suffocation, do not enter a confined space, such as a silo, bin, bulk truck, or other storage container or vessel that stores or contains DGLite™ pellets. Dust can build up or adhere to the walls of a confined space and release, collapse, or fall unexpectedly.

Recommendations on the conditions for safe storage:

May cause pitting of aluminum. Ignites on contact with fluorine and other strong oxidizing agents and is incompatible with acids, ammonium salts, and magnesium metal.

Section 8: Exposure, Controls, Personal Protection

Exposure limits vary with the % quartz dust. Refer to ACGIH and MSHA for current TLV's and TWA's.

Selected Occupational Exposure Limits for airborne dust (effective, June 1, 2015).

- 1 – Value equivalent to OSHA formulas (29 CFR 1910.1000) and MSHA formulas (1973 TLVs at 30 CFR 56/57.5001)
- 2 – Value also applies to MSHA Metal / Non-Metal (1973 TLVs at 30 CFR 56/57.5001).
- 3 – OSHA enforces 0.250 mg/m³ in construction and shipyards (CPL-03-00-007).
- 4 – Value also applies to OSHA construction (29 CFR 1926.55, Appendix A) and shipyards (29 CFR 1915.1000, Table Z)
- 5 – MSHA limit = 10 mg/m³.
- 6 – Value also applies to shipyards (29 CFR 1915), marine terminals (29 CFR 1917), and longshoring (29 CFR 1918.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Particulates not otherwise classified (CAS SEQ250)	PEL	5 mg/m ³	Respirable Fraction
		15mg/m ³	Total dust
Calcium Carbonate (CAS 1317-65-3)	TWA	5 mg/m ³	Respirable fraction 6
		15mg/m ³	Total dust 5,6

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Crystalline Silica (Quartz) (CAS 14808-60-7)	TWA	0.3 mg/m ³	Total dust. 1,2,3
		0.1 mg/m ³	Respirable. 1,2,3
		2.4 mppcf	Respirable. 1,3,4
Particulates not otherwise classified (CAS SEQ250)	TWA	5 mg/m ³	Respirable fraction. 1
		15 mg/m ³	Total dust. 1,4,5
		50 mppcf	Total dust. 1,4
		15 mppcf	Respirable fraction. 1
Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)	TWA	0.15 mg/m ³	Total dust. 1
		0.05 mg/m ³	Respirable. 1
		1.2 mppcf	Respirable. 1

US. ACGIH Threshold Limit Values®

Components	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	TWA	0.025 mg/m ³	Respirable fraction.
Tridymite and Cristobalite (other forms of crystalline silica)	TWA	0.025 mg/m ³	Respirable fraction.

Section 9: Physical and Chemical Properties

- **Appearance (physical state, color, etc.):** Tan or brown para-spherical solid particles ranging in size from approximately 1/8th inch diameter and smaller.
- **Odor** – Slight Odor
- **Vapor pressure:** Not Applicable
- **Odor threshold:** Not Applicable
- **Vapor density:** Not Applicable
- **pH:** Ranges between 6 and 9 in saturated water solution
- **Relative density:** Ranges between 30 and 65 pounds per cubic foot
- **Melting point/freezing point:** Not Applicable
- **Solubility:** When exposed to liquid water, granules disintegrate into very fine dolomite stone dust and wood flour dust particles.
- **Initial boiling point and boiling range:** Not Applicable
- **Flash point:** None
- **Evaporation rate:** None
- **Flammability (solid, gas):** Not Applicable
- **Upper/lower flammability or explosive limits:** Not Determined for dust from granules. An airborne concentration of 40 grams of dust per cubic meter is often used as the LEL for the wood dust component. For calcium lignosulfonate, the LEL is 0.2 oz / ft³ and the UEL is 3.5 oz. / ft³.
- **Partition coefficient: n-octanol/water:** Not Applicable for dolomite and wood flour; 100% water for Calcium Lignosulfonate.
- **Auto-ignition temperature:** Not determined for dust from granules.
- **Decomposition temperature:** Greater than 350°F for organic components. When heated at 1100 - 1700°F, dolomitic limestone decomposes into dolomitic quicklime releasing carbon dioxide gas.
- **Viscosity.** Not Applicable.

Section 10: Stability and Reactivity

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport

Stability: Reacts with acids evolving CO₂. Stable if no acids or strong oxidizing agents are present.

Incompatibility: Ignites on contact with fluorine and other strong oxidizing agents and is incompatible with acids, ammonium salts, and magnesium metal. May cause pitting of aluminum.

Hazardous polymerization: Will not occur.

Hazardous decomposition products: When heated in decomposition the organic components produce oxides of carbon and potentially toxic fumes and gases. . When heated at 1100 - 1700°F, dolomitic limestone decomposes into dolomitic quicklime releasing carbon dioxide gas.

Section 11: Toxicological Information (See also Section 2: Hazards Identification)

Inhalation Repeated inhalation of respirable crystalline silica (quartz) may cause silicosis, a fibrosis (scarring) of the lungs. Silicosis is irreversible and may be fatal. Silicosis increases the risk of contracting pulmonary tuberculosis. Some studies suggest that repeated inhalation of respirable crystalline silica may cause other adverse health effects including lung and kidney cancer.

Skin contact May cause irritation through mechanical abrasion and drying.

Eye contact May cause irritation through mechanical abrasion.

Ingestion Not likely, due to the form of the product.

Symptoms related to the physical, chemical, and toxicological characteristics: Dust from granules:
Discomfort in the chest. Shortness of breath. Coughing.

Information on toxicological effects:

Acute toxicity Not expected to be acutely toxic.

Skin corrosion/irritation This product is not expected to be a skin hazard.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization:

Respiratory sensitization No respiratory sensitizing effects known.

Skin sensitization Not known to be a dermal irritant or sensitizer.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Respirable crystalline silica has been classified by IARC and NTP as a known human carcinogen, and classified by ACGIH as a suspected human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Crystalline Silica(Quartz) (CAS 14808-60-7)	1 Carcinogenic to humans.
Respirable Tridymite and Cristobalite (other forms of Crystalline) (CAS Mixture)	1 Carcinogenic to humans.

NTP Report on Carcinogens: Crystalline Silica(Quartz) (CAS 14808-60-7)
Known To Be Human Carcinogen.

Reproductive toxicity Not expected to be a reproductive hazard.

Specific target organ toxicity – single exposure Not classified.

Specific target organ toxicity – repeated exposure Respirable crystalline silica: May cause damage to organs (lung) through repeated exposure prolonged or repeated exposure.

Aspiration hazard Due to the physical form of the product it is not an aspiration hazard.

Chronic effects Prolonged inhalation of respirable crystalline silica may be harmful. May cause damage to organs (lungs) through prolonged or repeated exposure. There are reports in the literature suggesting that excessive crystalline silica exposure may be associated with autoimmune disorders and other adverse health effects involving the kidney. In particular, the incidence of scleroderma (thickening of the skin caused by swelling and thickening of fibrous tissue) appears to be higher in silicotic individuals. To date, the evidence does not conclusively determine a causal relationship between silica exposure and these adverse health effect.

Section 12: Ecological Information

Ecotoxicity: Discharging granules into waters will release:

- Limestone and wood flour fines which may increase total suspended particulate (TSP) levels that can be harmful to certain aquatic organisms.
- Water soluble lignosulfonate (which is partially biodegradable) (BOD=0.14-0.26 lbs/lb of solids and COD = 0.49 – 0.91 lbs/lb of solids.).

Persistence and degradability: Wood flour and calcium lignosulfonate are partially bio-degradable.

Dolomite stone dust will react slowly with acid soils and increase soil pH into ranges generally favorable to plant life.

Bioaccumulative potential: None Expected. No evidence is currently available on wood dust effects on plants and animals. Wood dust may contain compounds that are considered hazardous to aquatic organisms.

Mobility in soil: Not determined dolomite stone dust or wood flour. Calcium lignosulfonate is completely miscible in water.

Other adverse effects: No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, global warming potential) are expected from the ingredients in these granules.

Section 13: Disposal Considerations

Disposal Instructions: Do not allow fine particulate matter to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with fine particulates. Dispose of contents in accordance with local/regional/national/international regulations.

Hazardous waste code: Not Regulated

Waste from Residue / Unused Products: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues.

Contaminated Packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty packaging materials should be recycled or disposed of in accordance with applicable regulations and practices.

Section 14: Transport Information (Not intended to be all-inclusive)

Dolomite is not classified as a hazardous material by US DOT and is not regulated by the Transportation of Dangerous Goods (TDG) when shipped by any mode of transport.

UN number - Not Regulated

UN proper shipping name - Not regulated

DOT Transport hazard class – Not Applicable

DOT Packing group – Not applicable

International Maritime Dangerous Goods Code (IMDG Code) – Not regulated as dangerous goods.

International Air Transport Association (IATA) – Not regulated as dangerous goods

Transport in bulk (according to Annex II of MARPOL 73/78 and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code (IBC Code))). Not Applicable

Section 15: Regulatory Information (Not intended to be all-inclusive.)

US Federal Regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) – Not Regulated

RCRA Hazardous Waste Number: Not Listed (40 CFR 261.33)

RCRA Hazardous Waste Classification (40 CFR 261): Not Classified

CERCLA Hazardous Substance List (40 CFR 302.4) Not listed

CERCLA Reportable Quantity (RQ): not listed

SARA Hazard categories

Acute Health – Yes

Chronic Health – Yes

Fire hazard – Yes

Pressure hazard – No

Reactivity hazard - No

SARA 313 (TRI Reporting) – Not Regulated

SARA Toxic Chemical (40 CFR 372.65): not listed

SARA 302 (Extremely Hazardous Substance): Not Listed

OSHA Specifically Regulated Substance (29 CFR 1910): not listed.

Clean Air Act (CAA) Section 112 – Hazardous Air Pollutants (HAP's) List – Not Regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) – Not Regulated

Canadian Regulations. Dolomite products containing crystalline silica and calcium carbonate are classified D2A and are subject to WHMIS requirements.

Additional State or Province regulations may be applicable. For Example:

US. Massachusetts RTK - Substance List

Crystalline Silica(Quartz) (CAS 14808-60-7)

Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)

US. New Jersey Worker and Community Right-to-Know Act

Crystalline Silica(Quartz) (CAS 14808-60-7)

Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)

US. Pennsylvania Worker and Community Right-to-Know Law

Crystalline Silica(Quartz) (CAS 14808-60-7)

Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Crystalline Silica(Quartz) (CAS 14808-60-7)

Section 16: Other Information

Original Issue Date: July 23, 2019

Revision Date: None

Abbreviations

ACGIH — American Conference of Governmental Industrial Hygienists

CAS — Chemical Abstract Service

CERCLA — Comprehensive Emergency Response and Comprehensive Liability Act

CFR — Code of Federal Regulations

DOT — Department of Transportation

GHS — Globally Harmonized System

HEPA — High Efficiency Particulate Air

IATA — International Air Transport Association
IARC — International Agency for Research on Cancer
IMDG — International Maritime Dangerous Goods
NIOSH — National Institute of Occupational Safety and Health
NOEC — No Observed Effect Concentration
NTP — National Toxicology Program
OSHA — Occupational Safety and Health Administration
PEL — Permissible Exposure Limit
REL — Recommended Exposure Limit
RQ — Reportable Quantity
SARA — Superfund Amendments and Reauthorization Act
SDS — Safety Data Sheet
TLV — Threshold Limit Value
TPQ — Threshold Planning Quantity
TSCA — Toxic Substances Control Act
TWA — Time-Weighted Average
UN — United Nations

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